

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: PERKINS POND	Lake Area (ha):	11.90
Town: TROY	Maximum depth (m):	2.4
County: Cheshire	Mean depth (m):	0.8
River Basin: Connecticut	Volume (m ³):	90000
Latitude: 42°50' N	Relative depth:	0.6
Longitude: 72°08' W	Shore configuration:	---
Elevation (ft): 1230	Areal water load (m/yr):	36.41
Shore length (m): ---	Flushing rate (yr ⁻¹):	48.00
Watershed area (ha): 711.7	P retention coeff.:	0.41
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

23 February 1988

31 July 1987

DOM. PHYTOPLANKTON (% TOTAL) #1	MOUGEOTIA 95%	CHRYSPHAEERELLA 55%
#2		TABELLARIA 20%
#3		DINOBRYON 15%
PHYTOPLANKTON ABUNDANCE (cells/mL)		430.0
CHLOROPHYLL-A (µg/L)		7.50
DOM. ZOOPLANKTON (% TOTAL) #1	CYCLOPOID COPEPOD 50%	NAUPLII LARVAE 71%
#2	SYNCHAETA 27%	CYCLOPOID COPEPOD 21%
#3		
ROTIFERS/LITER	12	25
MICROCRUSTACEA/LITER	28	349
ZOOPLANKTON ABUNDANCE (#/L)	44	374
VASCULAR PLANT ABUNDANCE		Very abundant
SECCHI DISK TRANSPARENCY (m)		1.8
BOTTOM DISSOLVED OXYGEN (mg/L)	2.9	0.1
BACTERIA (fecal col., #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None

CHEMICAL:

Lake: PERKINS POND

Town: TROY

	23 February 1988		31 July 1987		
DEPTH (m)	2.0		1.5		
pH (units)	5.7		5.8		
A.N.C. (Alkalinity)	4.8		1.6		
NITRATE NITROGEN	0.10		< 0.05		
TOTAL KJELDAHL NITROGEN	1.40		0.92		
TOTAL PHOSPHORUS	0.009		0.019		
CONDUCTIVITY (μ mhos/cm)	61.1		41.2		
APPARENT COLOR (cpu)	58		105		
MAGNESIUM			0.35		
CALCIUM			1.6		
SODIUM			5.1		
POTASSIUM			0.30		
CHLORIDE	8		6		
SULFATE	7		6		
TN : TP	167		48		
CALCITE SATURATION INDEX			5.1		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1987

D.O. S.D. PLANT CHL TOTAL CLASS

5	3	4	1	13	Eutro.
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COMMENTS:

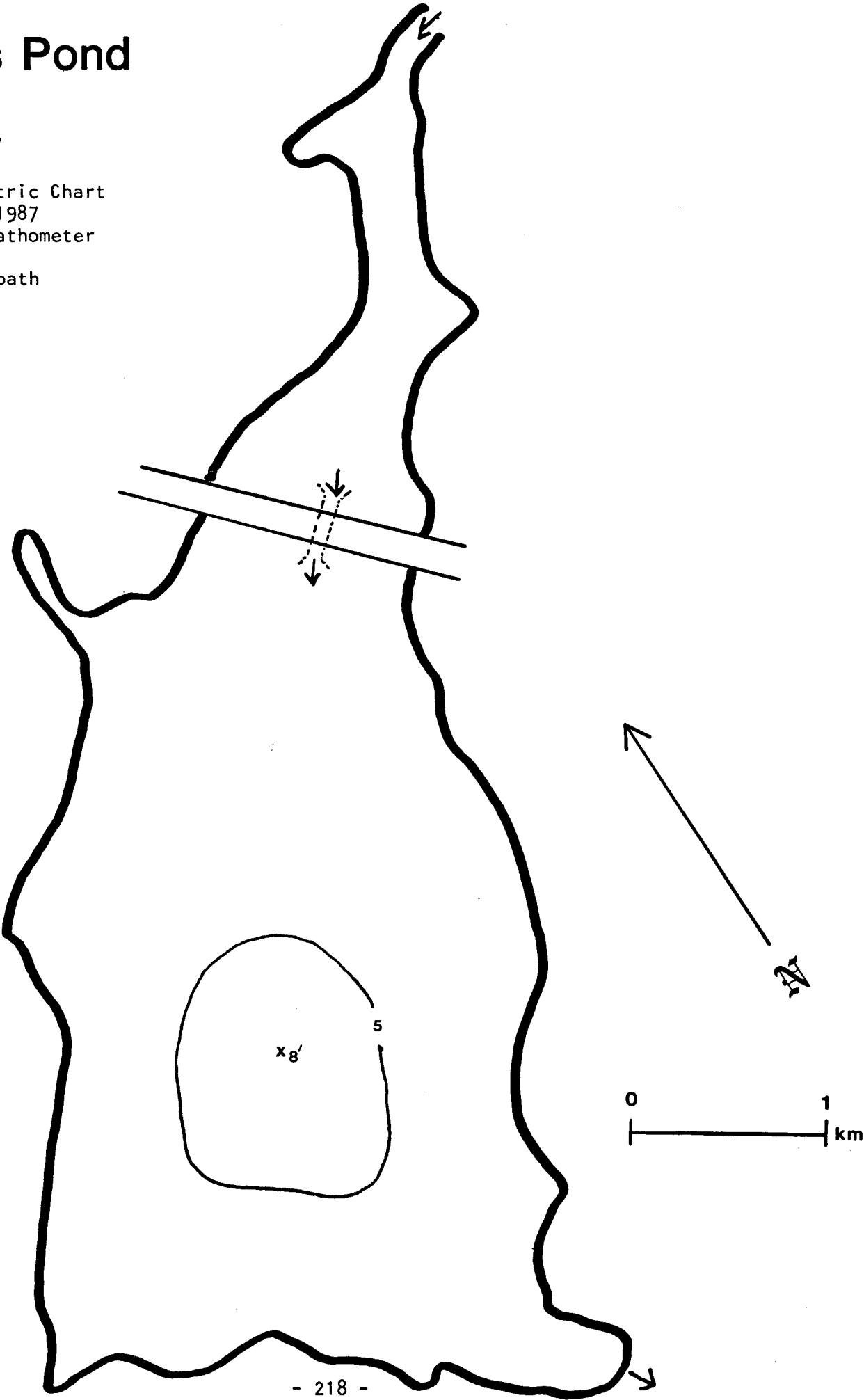
1. A dark tea-colored pond, full of aquatic weeds, with a peaty bottom. Two cottages were on the shoreline.
2. Greens (40%) and cryptomonads (35%) dominated the whole-water phytoplankton community. The dominant genera were Cryptomonas (35%) and tiny green flagellates (30%).

Perkins Pond

Troy

Rough Bathymetric Chart
WSPCD - 1987
sounded by fathometer

5 ft. isobath



FIELD DATA SHEET

LAKE: PERKINS POND	TOWN: TROY
DATE: 07/31/87	WEATHER: SUNNY, DRY, LT. BREEZE...

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[illegible]

SECCHI DISK (m): 1.8 COMMENTS:

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BOTTOM DEPTH (m): 2.5

TIME: 1200

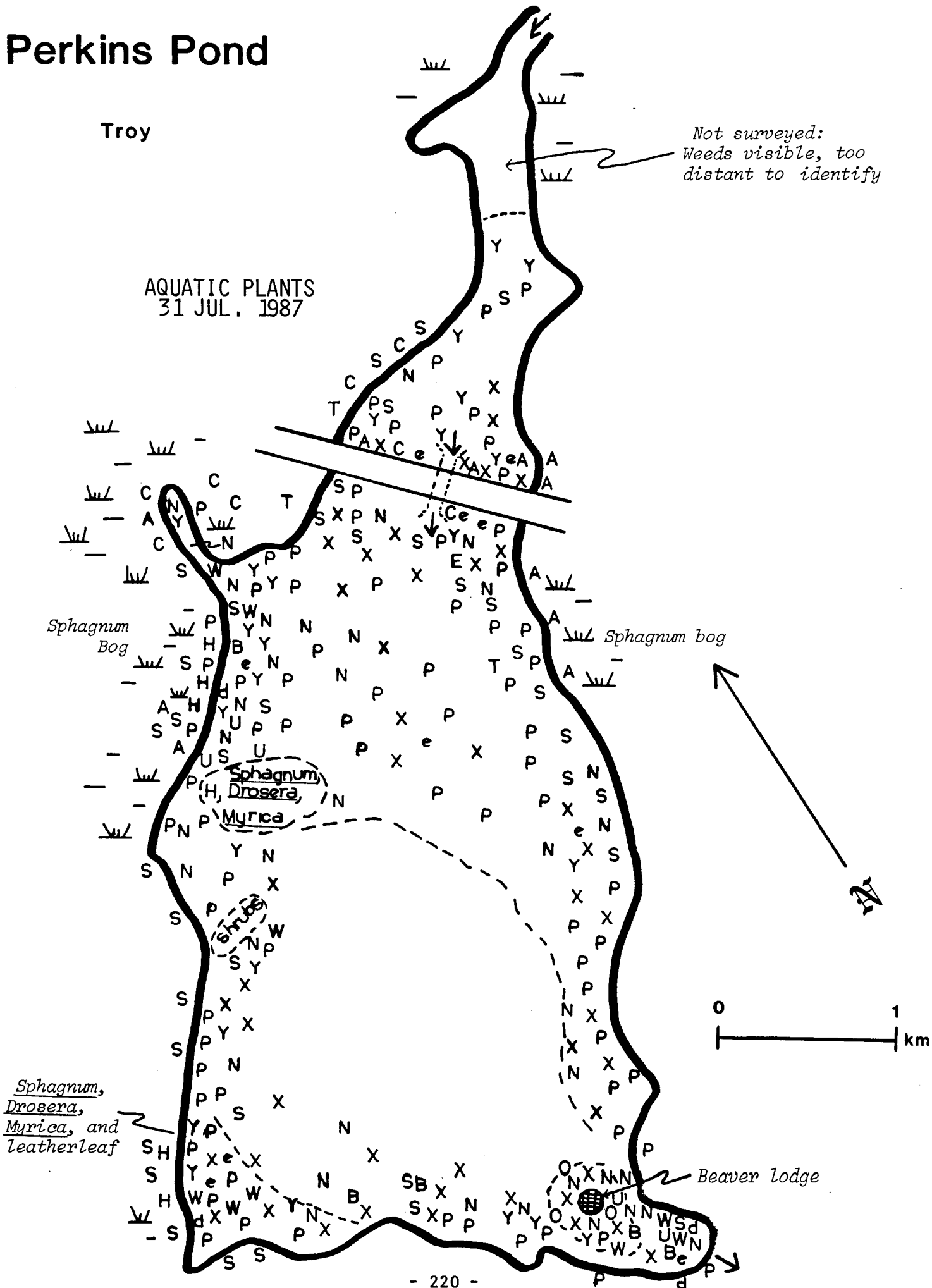
*Dissolved oxygen values are in mg/L

Perkins Pond

Troy

AQUATIC PLANTS
31 JUL. 1987

Not surveyed:
Weeds visible, too
distant to identify



AQUATIC PLANT SURVEY			
LAKE: PERKINS POND		TOWN: TROY	DATE: 07/31/87
Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
X		Sterile thread-like leaf	Abundant
P	Pontederia cordata	Pickereelweed	Abundant
N	Nymphaea	White water lily	Abundant
Y	Nuphar	Yellow water lily	Common
e	Eleocharis	Spike rush	Sparse
S	Sparganium	Bur reed	Common
B	Brasenia schreberi	Water shield	Scattered
U	Utricularia	Bladderwort	Scattered
W	Potamogeton	Pondweed	Scattered
d	Dulichium arundinaceum	Three-way sedge	Scattered
H	Hypericum	St. John's-wort	Common
A	Sagittaria	Arrowhead	Common
T	Typha	Cattail	Sparse
C	Carex	Sedge	Scattered
	Drosera	Sundew	Common
	Myrica gale	Sweet gale	Common
	Chamaedaphne calyculata	Leatherleaf	Scattered
E	Eriocaulon septangulare	Pipewort	Sparse
O	Cephalanthus occidentalis	Buttonbush	Sparse
OVERALL ABUNDANCE: Very abundant			
GENERAL OBSERVATIONS: 1. Plants were extremely abundant north of Rte. 124 and this area was not navigable. The plants depicted were surveyed from the road. The very northern end was full of weeds, but was too distant to identify the plants. 2. Much of the pond was surrounded by a sphagnum bog. Sundew, sweet gale, and leatherleaf were all observed throughout the bogs. These plants are listed but are not depicted in the map. 3. Many small pickerel were observed. A beaver lodge was present. Large red water mites were visible in the water.			